

Cleath-Harris Geologists, Inc.

1390 Oceanaire Drive
San Luis Obispo, California 93405
(805) 543-1413



June 10, 2009

Jeremy Freund
Wallace Group
610 Clarion Court
San Luis Obispo, California 93401

**Subject: Agricultural Water Source Assessment
for Potential 25-Acre Vineyard, Fiscalini-Righetti Ranch and
New Vineyards on original Righetti Avocado Ranch,
Edna Valley, San Luis Obispo County**

Dear Mr. Freund:

Per your request, Cleath-Harris Geologists is providing an agricultural water source assessment of the original Righetti Avocado Ranch and the adjacent Fiscalini Ranch. This assessment is prepared to conform to requirements for an agricultural cluster development proposal on the Righetti Fiscalini Ranch. A domestic water source assessment for the agricultural cluster development has also separately been prepared by Cleath-Harris Geologists. This document is intended to be used along with the domestic water source assessment.

The total area of potential agricultural use on the Fiscalini Ranch, to allow a 6-lot agricultural cluster, would be 120 acres. The existing irrigated area on the Fiscalini Ranch has been calculated by the County at about 95 acres. Therefore, as a part of the agricultural cluster, new vineyards on the Fiscalini Ranch portion of the property could cover an area of 25 acres. If the original ranch was to fully develop the irrigable acreage, there would be an additional vineyard area of about 6 acres (see attached map). The operational water supply facilities on the Righetti Ranch are identified and the additional water wells that could irrigate these potential acreages are summarized below.

EXISTING RIGHETTI/FISCALINI RANCH AGRICULTURAL WATER SUPPLY

The original Righetti Avocado Ranch covers an area of about 500 acres and is irrigated with both surface water from a reservoir and several deep non-riparian water wells (Well GW #2 (Corn), Well GW #3 (5-acre), the 4 acre well, the 7 acre wells #2 and #3, the Lane well, and the Quaglino well). The existing water wells and reservoir serving the old ranch and the currently planted Fiscalini Ranch are shown on the Wallace plan sheet attached hereto. The existing irrigated agriculture on the Fiscalini Ranch has been irrigated for three years from the existing agricultural water supply system.



The existing water supply sources for irrigation at the ranch will not be used for the proposed agricultural cluster with one exception: the 7-acre well #3. The 7-acre well #3, located near the reservoir, is proposed to be converted from agricultural use to domestic use. In its place, the ranch would use the Lane well, located along Coyote Canyon Road. The combined flow from the 7-acre well #3 and an adjacent well (7-acre well #2) have been metered for at least three years with an annual production of 15.746 acre feet in 2006, 30.57 acre feet in 2007, and 31.38 acre feet in 2008. Dave Righetti estimates that the flow from the 7-acre well #3 is at least $\frac{3}{4}$ of this flow but not all of the flow. The Lane well as tested for this study appears to be capable of providing this amount of water in addition to the amount it currently produces and the amount proposed for the additional irrigated land on the Fiscalini Ranch parcel (described below).

WATER SUPPLY FOR PROPOSED AGRICULTURAL IMPROVEMENTS, FISCALINI RANCH AGRICULTURAL CLUSTER DEVELOPMENT

Irrigation for a new area on the Fiscalini Ranch portion of the Righetti Ranch is based on the assumption that an additional water source be used. The information provided below includes irrigation demand, information on a new supply well and associated data, production history, and water quality tests.

Irrigation Demand

The irrigation demand for the potential vineyard area is one acre-feet per year per acre, or 25 acre-feet per year (AFY) for a 25-acre vineyard. This rate is based on County Water Master Plan water use average for vineyards in the Avila/San Luis Obispo area.

Well Source

The Lane Well (GW Well #1) is to be dedicated for the vineyard irrigation and to offset water that is now being pumped for irrigation from the 7-acre well (the 7-acre well is to be used for the domestic water system proposed in the agricultural cluster development), along with the previous pumped amounts used for agricultural irrigation. It is located within the West Corral de Piedra watershed in the avocado orchard east of the creek, adjacent to Coyote Canyon Road. The well is completed within fractured bedrock aquifers of the Franciscan Formation that consist of well cemented sandstone.

The Lane well was drilled in 1990 by Rauch Drilling Company to a total depth of 535 feet with perforations in the groundwater producing zone from 375 feet to 535 feet depth. A sanitary seal consisting of a cement-bentonite grout was placed to 50 feet depth. The well is equipped with a pump, and is metered. The Well Completion Report is included in Appendix A.



Production History

A two and one half day constant discharge pumping test was performed at the Lane Well in April 2009 at a rate averaging 70 gallons per minute (gpm). The static water level was 153 feet prior to the start of the test and the pumping level declined a total of 70 feet over the duration of the test. The decline in water levels began to flatten out during the test with water levels dropping seven feet in the last 47 hours of the test.

Over the 40 minutes following the pumping test, the water level rose to within 40 feet of the static water level. Recovery to the original static water level is projected to occur at $t/t(0)$ of approximately one, indicating minimal dewatering of the fractured rock aquifer during the test. The drawdown measured during the test suggests that the well is capable of sustaining the 70 gpm rate over a long term. Based on our analysis of the pump test data, the yield for this well should be estimated at 70 gpm. The pump test data for the well is included in Appendix B.

The Lane Well has been pumped periodically and has been monitored daily since December 2005. Meter readings indicate that the Lane Well has been pumped at rates of 0.6 to 0.8 acre-feet (AF) per day. The pumping schedules have been generally short duration, often with several weeks between pumping. The well produced 4.1 AF in 2006, 5.6 AF in 2007, and 4.6 AF in 2008.

Water Quality

Water quality samples were obtained from the Lane Well on April 9, 2009. No analytes exceeded the primary or secondary standards for drinking water established by the California Department of Health Services (DHS), however, boron is present at elevated concentrations. Boron is not a regulated primary drinking water constituent but does impact the use of the water for irrigation of certain landscape plants and agricultural crops. The boron concentration in the Lane Well sample was 11 milligrams per liter (mg/l). Total dissolved solids concentration was 513 mg/l in the Lane Well.

As a source for vineyard irrigation, water produced from the Lane Well would require treatment for boron. The laboratory report for the well is included in Appendix D.



POTENTIAL ADDITIONAL WATER REQUIREMENTS RIGHETTI AVOCADO RANCH AT FULL IRRIGATED AGRICULTURAL DEVELOPMENT

Wallace Group has analyzed the original Righetti Avocado Ranch area to determine if the property's potential planted area is fully utilized. The analysis indicates that there is no more than 6 acres of land that could possibly be considered for irrigated agriculture that is not currently planted, based on crop criteria (not economic criteria). The agricultural use of these 6-acres is not appropriate for avocados but could be planted in vineyards. Based on the vineyard water use estimated in the County Water Master Plan, the 6 acres of vineyards would require 6 acre-feet of water per year. The water demand that could result from planting an additional 6 acres in vineyards could be met through the use of currently untapped water wells on the ranch such as the Upper Horse Pasture well and the Redrock quarry well, without any influence on other wells or surface water sources on the ranch. Pumping tests and our analysis of the capacities of these wells are attached in the appendix.

CONCLUSION

The proposed irrigation well source (the Lane well) has a long-term sustained yield capability that is sufficient for irrigation of 25 acres of vineyards and to replace the water that has historically been used for agricultural irrigation from the 7-acre well #3, along with historic pumping amounts. Under the proposed project, the 7-Acre well #3 would supply the agricultural cluster residential development. The irrigation demand, based on San Luis Obispo County Water Master Plan water use average for vineyards in the Avila/San Luis Obispo area, is one AFY per acre, or 25 AFY for the 25-acre vineyard. The water quality of the sample collected from the Lane well meets California drinking water standards, but the sample contained a concentration of boron that is known to be damaging to grapes. Treatment for boron would be necessary for vineyard irrigation.

Establishing the maximum irrigated acreage on the existing Righetti Avocado Ranch would involve placing an additional 6 acres of vineyards in currently unused areas of the property. The water demand for these vineyards would be 6 acre-feet per year. This water demand could be met with currently unused wells on the ranch including the Upper Horse Pasture well and the Redrock Quarry well.

Very truly yours,


Timothy S. Cleath
Certified Hydrogeologist #81



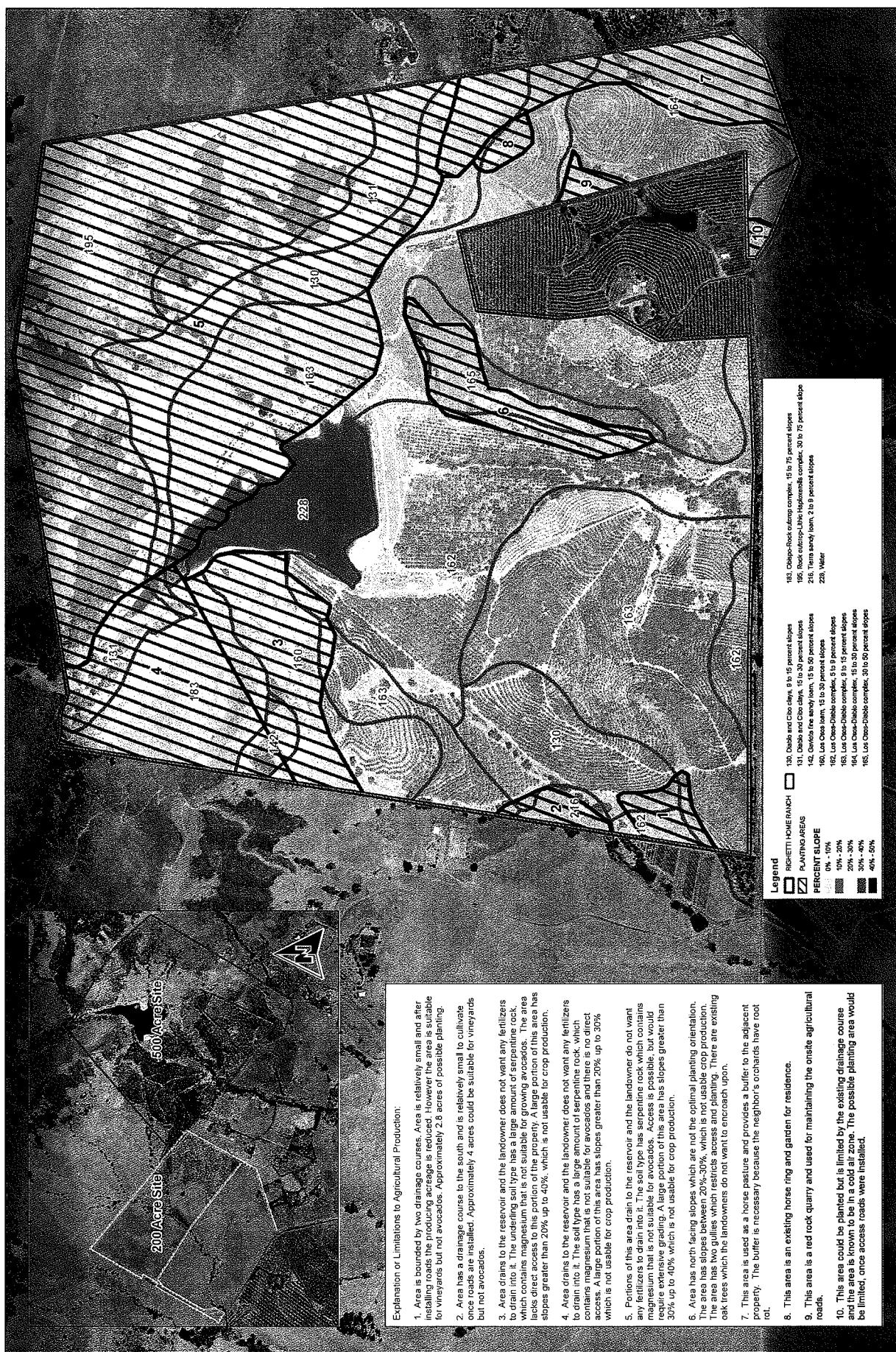
PLANTING AREA MAP

RIGHETTI PROPERTY



1 Inch = 600 feet
 0 150 300
 Feet

MAP NOTES:
 GIS DATA PROVIDED BY
 THE COUNTY OF SAN LUIS
 OBISPO. MAP PRODUCED
 JUNE 2008.





APPENDIX A

Lane Well Information

Including:

Well Completion Report
Pumping Test Data
Water Quality Data

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

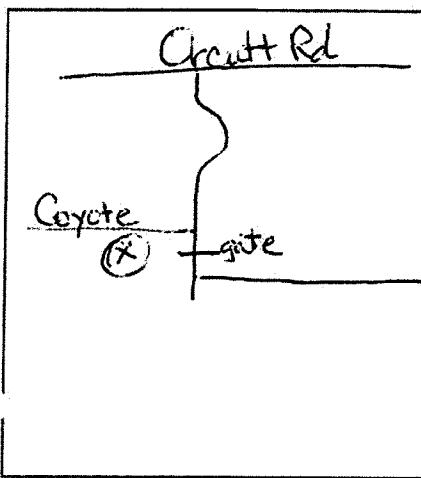
No. 344150

Notice of Intent No. 90-446
Local Permit No. or Date 90-446

State Well No. _____
Other Well No. _____

(1) OWNER:	Name <u>Ernest Righetti</u>		
Address	<u>4750 Righetti Rd.</u>		
City	<u>San Luis Obispo, CA</u>	ZIP <u>93401</u>	
(2) LOCATION OF WELL:	See instructions: Hole 12		
County	<u>San Luis Obispo</u>	Owner's Well Number <u>7</u>	
Well address if different from above			
Township	<u>31S</u>	Range <u>13E</u>	Section <u>9</u>
Distance from cities, roads, railroads, fences, etc.			
APN	<u>044-021-024</u>		

(12) WELL LOG:	Total depth <u>535</u> ft.	Completed depth <u>535</u> ft.
from ft.	to ft.	Formation (Describe by color, character, size or material)
0	- 20	Clay, soft sandstone
20	- 60	Hard grey sandstone
60	- 80	Soft to hard sandstone
80	- 360	Hard grey sandstone
360	- 380	Sandstone-broken zones
380	- 420	Hard sandstone
420	- 480	Sandstone, thin slate layers, quartz
480	- 500	Sandstone-broken zones
500	- 535	Broken zones



(3) TYPE OF WORK:

- New Well Deepening
 Reconstruction
 Reconditioning
 Horizontal Well
 Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

- Domestic
 Irrigation
 Industrial
 Test Well
 Municipal
 Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:

- | | |
|--|----------------------------------|
| Rotary <input checked="" type="checkbox"/> | Reverse <input type="checkbox"/> |
| Cable <input type="checkbox"/> | Air <input type="checkbox"/> |
| Other <input type="checkbox"/> | Bucket <input type="checkbox"/> |
- (6) GRAVEL PACK:
- | | | |
|---|------------------------------|-----------------|
| Yr. <input checked="" type="checkbox"/> | No. <input type="checkbox"/> | Size <u>3/8</u> |
| Diameter of bore <u>1 1/4</u> | | |
| Packed from <u>50</u> | to <u>535</u> | |

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	535	8	10	375	535	std

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 50 ft.

Were strata sealed against pollution? Yes No Interval _____ ft.

Method of sealing Bentonite & Cement

Work started 6-11-1990 Completed 6-13-1990

(10) WATER LEVELS:

Depth of first water, if known 360 ft.

Standing level after well completion 360 ft.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____

Type of test Pump Bailer Air lift

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge 170 gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes No If yes, by whom? _____

Was electric log made? Yes No If yes, attach copy to this report

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed M. K. (Well Driller)

NAME Rauch Drilling Co. Inc.

(Person, firm, or corporation) (Typed or printed)

Address P.O. Box 524

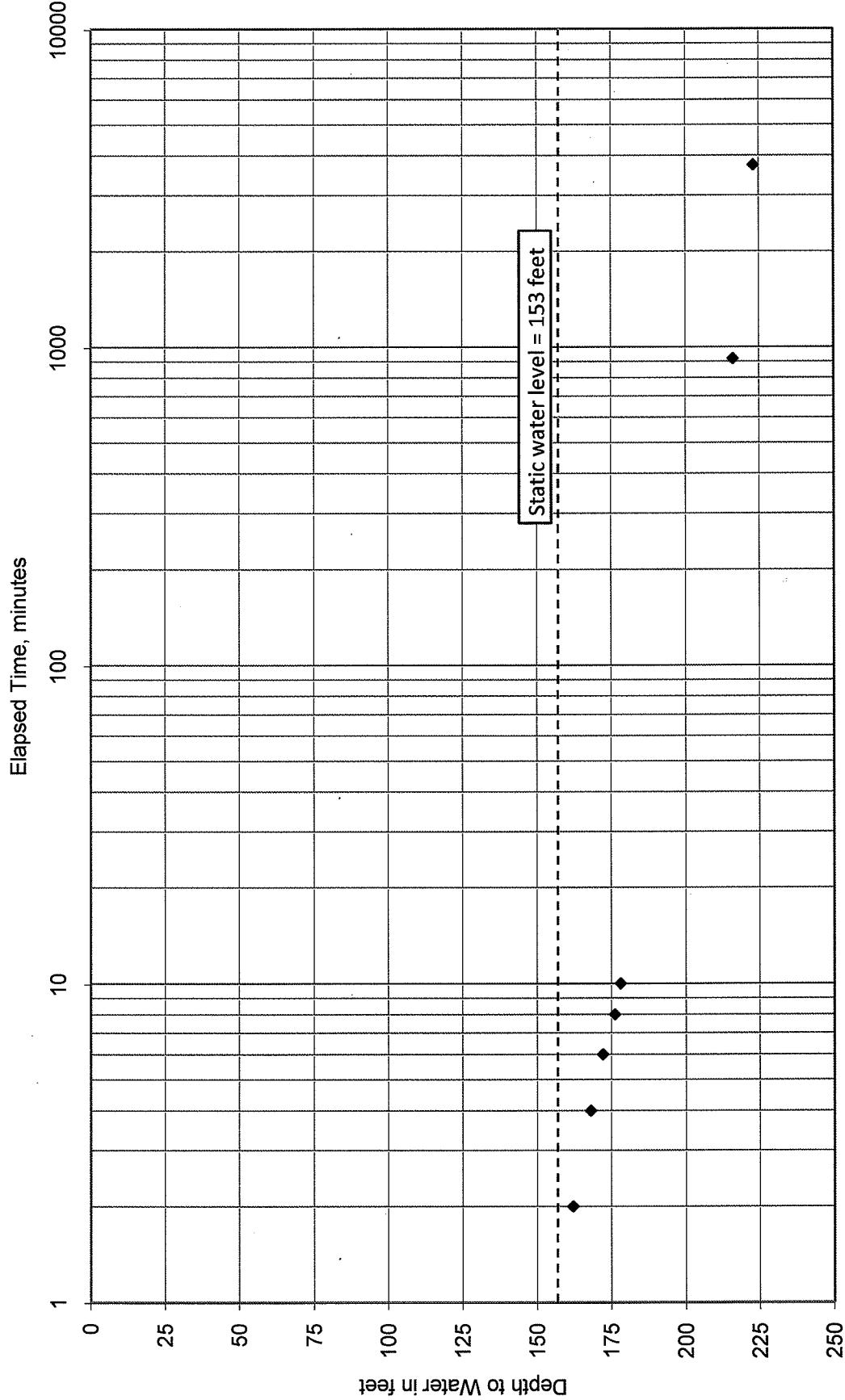
City Templeton, CA ZIP 93465

License No. 445016 Date of this report 7-15-91

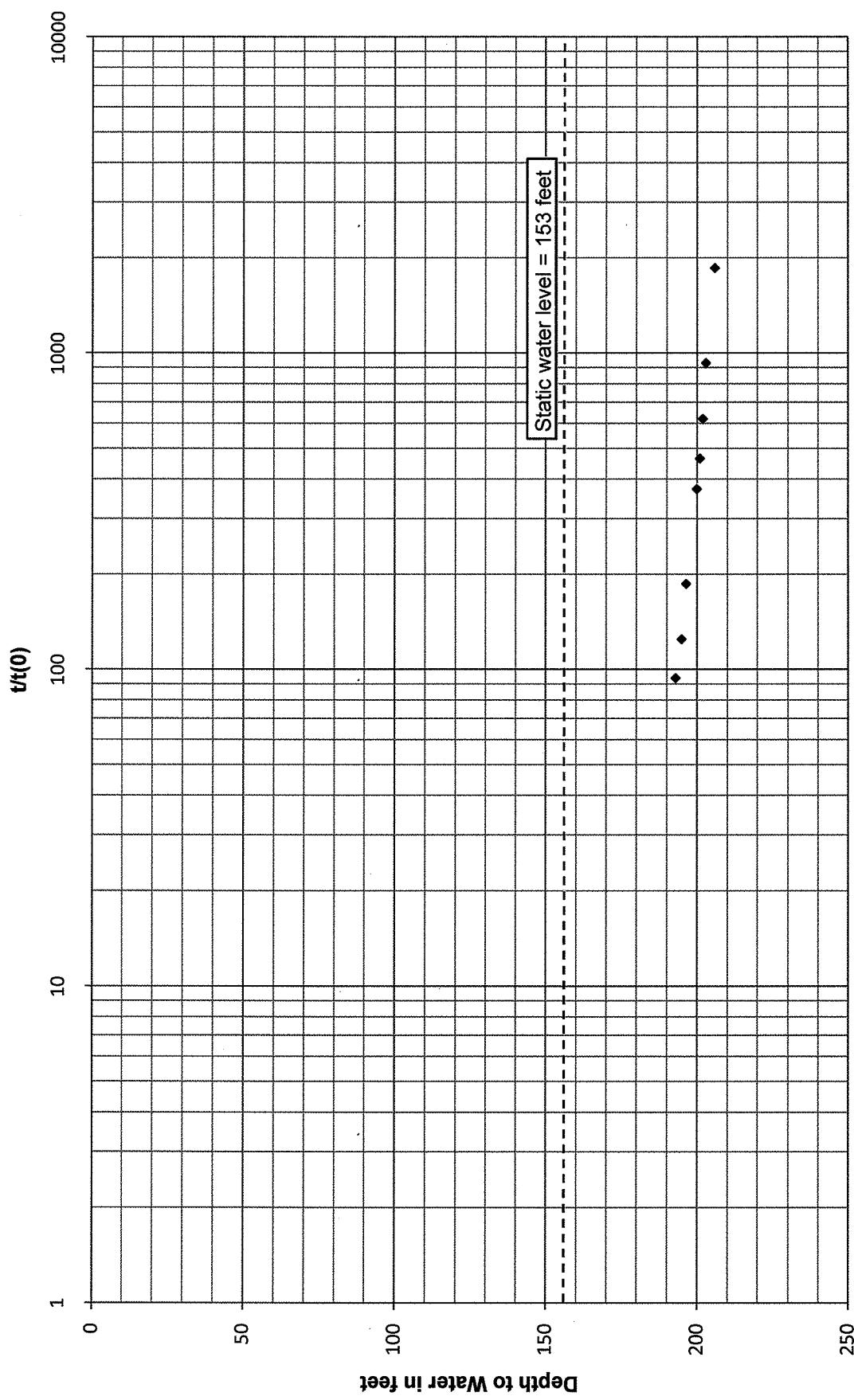
Pumping Test, Lane Well, Righetti Ranch
April 7-10, 2009

Perforations from 375 to 535 feet

Flow Rate: 70 gpm
Depth to Static Water Level: 153 feet



Recovery Test, Lane Well, Righetti Ranch
April 10, 2009



Pumping Test (62 hour), Lane Well

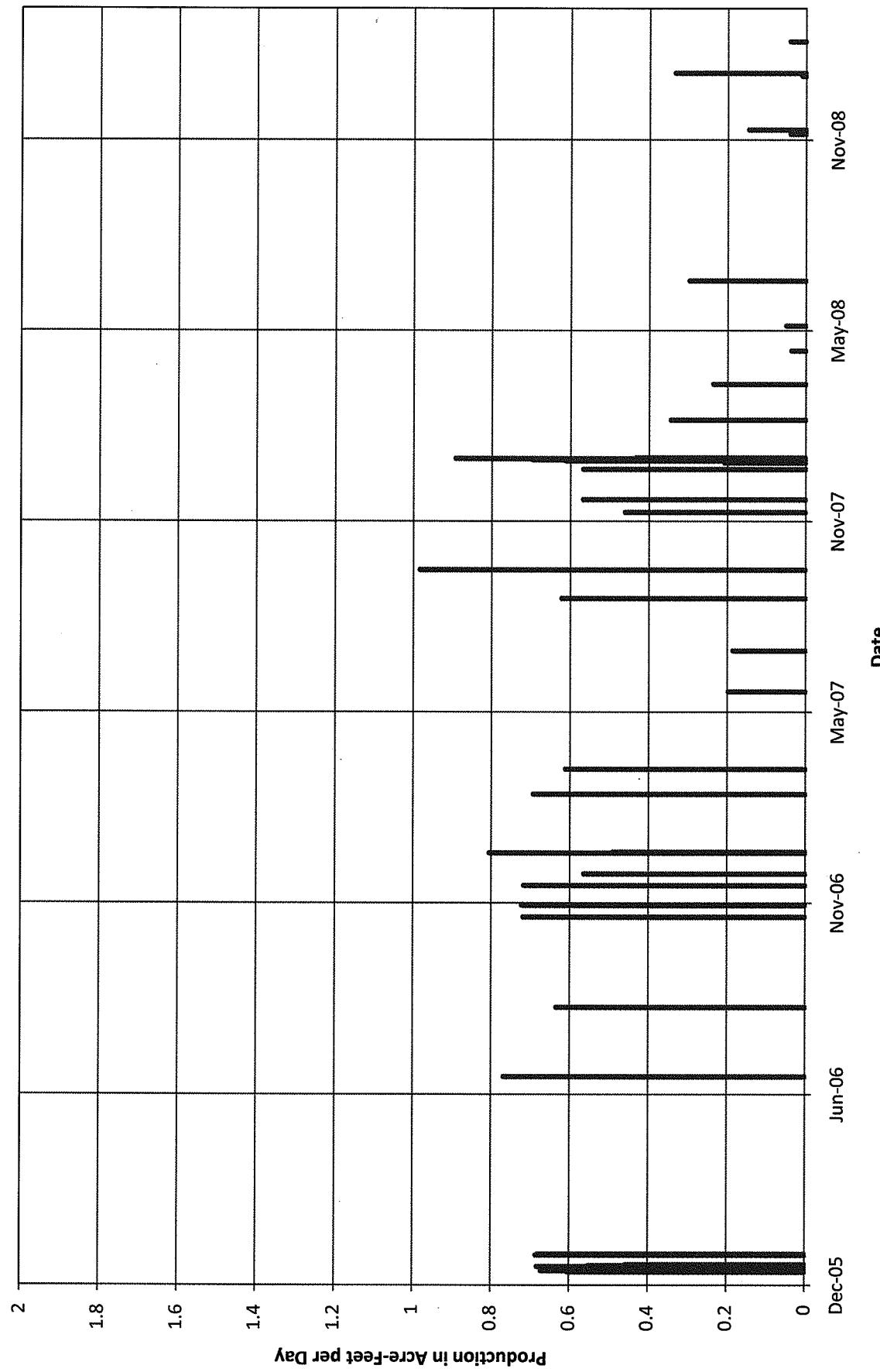
Day Mo./Day/Yr	Time hr:min	Elapsed Time minutes	Depth to Water feet	Drawdown feet
4/7/2009	11:15	0	153	0
	11:17	2	162	9
	11:19	4	168	15
	11:21	6	172	19
	11:23	8	176	23
	11:25	10	178	25
	2:33	918	216	63
	1:30	3735	223	70

Recovery Test, Lane Well

Day Mo./Day/Yr	Elapsed Time minutes	Depth to Water feet	Elapsed Time minutes	Recovery Time Ratio $t/t(0)$
Recovery	t	s	$t(0)$	$t/t(0)$
4/10/2009	3737	206	2	1868.5
	3739	203	4	934.75
	3741	202	6	623.50
	3743	201	8	467.88
	3745	200	10	374.50
	3755	196.5	20	187.75
	3765	195	30	125.50
	3775	193	40	94.38

Lane Well Production

Righetti Ranch





CREEK ENVIRONMENTAL LABORATORIES, INC.

A Minority-owned Business Enterprise

141 SUBURBAN ROAD, SUITE C • SAN LUIS OBISPO, CA 93401 • (805) 545-9838 • FAX (805) 545-0107

Page 1

Dave Righetti
Ernest Righetti Corp.
4750 Righetti Rd.
San Luis Obispo, CA 93401

Log Number: 09-C6011
Order: Q1934
Project: L
Received: 04/09/09
Printed: 04/20/09

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled		Matrix
		Date @ Time		
#L Lane Well	Dave Righetti	04/09/09@16:00		Aqueous
Analyte	Result	DLR	Dilution Factor	Method
Total Alkalinity as CaCO ₃	200	2	1	SM 2320B
Chloride	110	5	5	EPA 300.0
Electrical Conductance	826	1	1	SM 2510B
Nitrate as N	Not Detected	0.1	1	EPA 300.0
Nitrate as NO ₃	Not Detected	0.4	1	EPA 300.0
pH	8.6	0.1	1	pH units
Sulfate	34	0.5	1	EPA 300.0
Total Dissolved Solids	513	10	1	SM 2540C
Boron	11	0.05	1	EPA 200.7
Calcium	12	0.03	1	EPA 200.7
Hardness as CaCO ₃	46	1	NA	EPA 200.7
Sodium Adsorption Ratio (SAR)	12	0.1	1	EPA 200.7
Copper	Not Detected	0.05	1	EPA 200.7
Iron	0.02	0.02	1	EPA 200.7
Potassium	1.0	0.1	1	EPA 200.7
Magnesium	4.0	0.03	1	EPA 200.7
Manganese	Not Detected	0.02	1	EPA 200.7
Sodium	190	0.05	1	EPA 200.7
Zinc	Not Detected	0.05	1	EPA 200.7

DLR = Detection Limit for Reporting. Results of "Not Detected" are below DLR.

CREEK ENVIRONMENTAL LABORATORIES

Lab Director, Michael Ng



APPENDIX B

Well Information for
the Upper Horse Pasture Well (#8)
and
the Redrock Quarry Well

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Page 1 of 1

Owner's Well Number _____

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e072088

Date Work Began 04/10/2008 Date Work Ended 4/14/2008

Local Permit Agency SAN LUIS OBISPO COUNTY HEALTH DEPT

Permit Number 2008-027 Permit Date 1/29/08

Upper Horse Pasture
well

DWR Use Only - Do Not Fill In

State Well Number/Site Number	N W
Latitude	Longitude
APN/TRS/Other	

Geologic Log

Orientation	<input checked="" type="radio"/> Vertical	<input type="radio"/> Horizontal	<input type="radio"/> Angle	Specify _____
Drilling Method	ROTARY		Drilling Fluid	AIR
Depth from Surface		Description		
Feet	to Feet	Describe material, grain size, color, etc		
0	3	TOP SOIL		
3	18	BROWN SHALE		
18	35	FRACTURED BLUE SANDSTONE WITH BLUE		
		SHALE		
35	140	SERPENTINE		
140	160	FRACTURED BLUE SANDSTONE WITH BLUE		
		SHALE		
160	200	BLUE SANDSTONE		
200	225	FRACTURED BLUE SANDSTONE		
225	240	BLUE SANDSTONE		
240	315	FRACTURED BLUE SANDSTONE & BLUE		
		SHALE		
315	400	BLUE SANDSTONE		
NOTE: ANY PERSON REMOVING THE CAP FROM THIS WELL OTHER THAN MILLER DRILLING CO OR AUTHORIZED CONTRACTOR APPROVED BY US WILL VOID ALL STRUCTURAL WARRANTIES.				
BLOW TEST: 20 GPM @ 180 FT. 25 GPM @ 340 FT.				

Total Depth of Boring 400 Feet

Total Depth of Completed Well 350 Feet

Well Owner

Name DON RIGHETTI

Mailing Address 4780 RIGHETTI ROAD

City SAN LUIS OBISPO State CA Zip 93401

Well Location

Address 4500 COYOTE CYN SITE #8

City SAN LUIS OBISPO County San Luis Obispo

Latitude 35 14 32 N Longitude 120 34 44 W
Deg. Min. Sec. Deg. Min. Sec.

Datum Decimal Lat. Decimal Long.

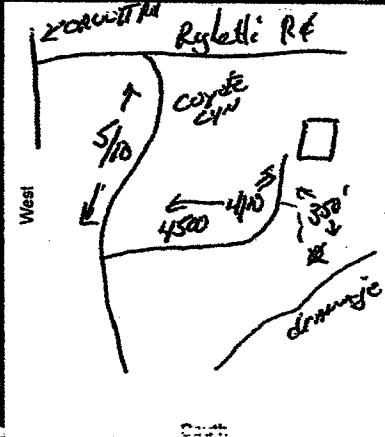
APN Book 044 Page 021 Parcel 011

Township 31S Range 13E Section 9-10

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North



Activity

New Well

Modification/Repair

Deepen

Other

Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary.

Please be accurate and complete.

Water Level and Yield of Completed Well

Depth to first water 200

(Feet below surface)

Depth to Static

Water Level 23 (Feet) Date Measured 04/14/2008

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)	Depth from Surface Feet to Feet	Fill	Description
0	190	9 7/8	BLANK	.265	5			0	50	CEMENT
190	350	9 7/8	PERF	.265	5	Milled Slots	0.040	50	350	GRAVEL PACK BIRDSEYE

Attachments

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief
Name MILLER DRILLING COMPANY

Person, Firm or Corporation

301 NORTH MAIN STREET

Address

TEMPLETON

City

CA 93465

State Zip

Signed KURT R Miller

C-57 Licensed Water Well Contractor

04/22/2008 Date Signed

324634 AA C-57 License Number

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM



San Luis Obispo County Farm Supply
"A Farmer Owned Cooperative"

Pump Test Report

Customer **E. Righetti & Sons** Date: **12/11/08**
Address **4750 Righetti Rd.** Page **1 of 3**
City and State **San Luis Obispo, CA 93401**
Location of Test **Along driveway at 4500 Coyote Canyon Rd. Well #8**

Test Information:

	Time	Pumping Level	G.P.M
12/2/08	2:50	27'6"	28
	2:51	48'	28
	2:52	52'	28
	2:53	56'	28
	2:54	57'	28
	2:55	58'	28
	3:00	62'	28
	3:05	65' 6"	28
	3:10	68'	28
	3:15	70'	28
	3:20	73'	28
	3:25	75'	28
	3:30	77'	28
	3:45	81'	28
	4:20	94'	28

Well Information:

Well Size **5"** Well Depth **347'**
Test pump size **5 HP 25gpm** Pump Setting **336'**
Standing Level **27'6"**
Hours of Running **72**
Test Started **2:15 pm** 12/2/08 Shut Down **2:15 pm 12/5/08**

Recovery:

Additional Information:

224 Tank Farm Road
Post Office Box 111
San Luis Obispo, CA 93406
805 543-3751

1108 Paso Robles Street
Paso Robles, CA 93446
805 238-1177

1920 N. Broadway
Santa Maria, CA 93454
805 922-2737

1079 El Camino Real
Arroyo Grande, CA 93420
805 489-5514



San Luis Obispo County Farm Supply

"A Farmer Owned Cooperative"

Pump Test Report

Customer **E. Righetti & Sons** Date: **12/11/08**
Address **4750 Righetti Rd.** Page **2 of 3**
City and State **San Luis Obispo, CA 93401**
Location of Test **Along driveway at 4500 Coyote Canyon Rd. Well #8**

Test Information:

	Time	Pumping Level	G.P.M
12/2/08	4:45 pm	95'	24.5
	10:00	138'	23.5 choke to 20 gpm
12/3/08	7:00 am	148'	20
	9:00	160'	20
	9:25	162'6"	20
	9:30	176'	32.5 opened up
	9:35	181'	32
	9:40	185'	32
	9:50	189'	32
	10:00	192'	32
	10:15	194'	32
	10:30	195'	32
	10:45	169'	15
	11:00	165'	15

Well Information:

Well Size **5"** Well Depth **347'**
Test pump size **5 HP 25gpm** Pump Setting **336'**
Standing Level **27'6"**
Hours of Running **72**
Test Started **2:15 pm** 12/2/08 Shut Down **2:15 pm 12/5/08**

Recovery:

Additional Information:



San Luis Obispo County Farm Supply

"A Farmer Owned Cooperative"

Pump Test Report

Customer **E. Righetti & Sons** Date: **12/11/08**
Address **4750 Righetti Rd.** Page 3 of 3
City and State **San Luis Obispo, CA 93401**
Location of Test **Along driveway at 4500 Coyote Canyon Rd. Well #8**

Test Information:

	Time	Pumping Level	G.P.M
12/3/08	3:00 pm	146'	15
	7:00	146'	15
12/3/08	7:00 am	146'	15
	1:00 pm	146'	15
12/5/08	4:30	146'	15
	9:30	146'	15
	8:00 am	146'	15
12/5/08	12:00 pm	146'	15
	2:15	147'	15

Well Information:

Well Size **5"** Well Depth **347'**
Test pump size **5 HP 25gpm** Pump Setting **336'**
Standing Level **27'6"**
Hours of Running **72**
Test Started **2:15 pm 12/2/08** Shut Down **2:15 pm 12/5/08**

Recovery:

Additional Information:

Ben Thompson

Pump Department Manager

224 Tank Farm Road
Post Office Box 111
San Luis Obispo, CA 93406
805 543-3751

1108 Paso Robles Street
Paso Robles, CA 93446
805 238-1177

1920 N. Broadway
Santa Maria, CA 93454
805 922-2737

1079 El Camino Real
Arroyo Grande, CA 93420
805 489-5514



San Luis Obispo County Farm Supply

"A Farmer Owned Cooperative"

Pump Test Report

Customer **E. Righetti & Sons** Date: **12/11/08**
Address **4750 Righetti Rd.** Recovery Log
City and State **San Luis Obispo, CA 93401**
Location of Test **Along driveway at 4500 Coyote Canyon Rd. Well #8**

Test Information:

Time	Pumping Level	G.P.M
12/5/08	2:15 pm	147'
recover to:	146'6"	1 min
	146'4"	2 min
	146'4"	3 min
	146'4"	4 min
	146'4"	5 min
	146'4"	10 min
	146'4"	15 min
	146'4"	20 min
	146'4"	25 min
	146'4"	30 min
	146'4"	35 min
	146'4"	40 min
	146'4"	45 min
	146'4"	50 min
	146'4"	55 min
	146'4"	60 min

Well Information:

Well Size **5"** Well Depth **347'**
Test pump size **5 HP 25gpm** Pump Setting **336'**
Standing Level **27'6"**
Hours of Running **72**
Test Started **2:15 pm** 12/2/08 Shut Down **2:15 pm 12/5/08**

Recovery:

Additional Information:

224 Tank Farm Road
Post Office Box 111
San Luis Obispo, CA 93406
805 543-3751

1108 Paso Robles Street
Paso Robles, CA 93446
805 238-1177

1920 N. Broadway
Santa Maria, CA 93454
805 922-2737

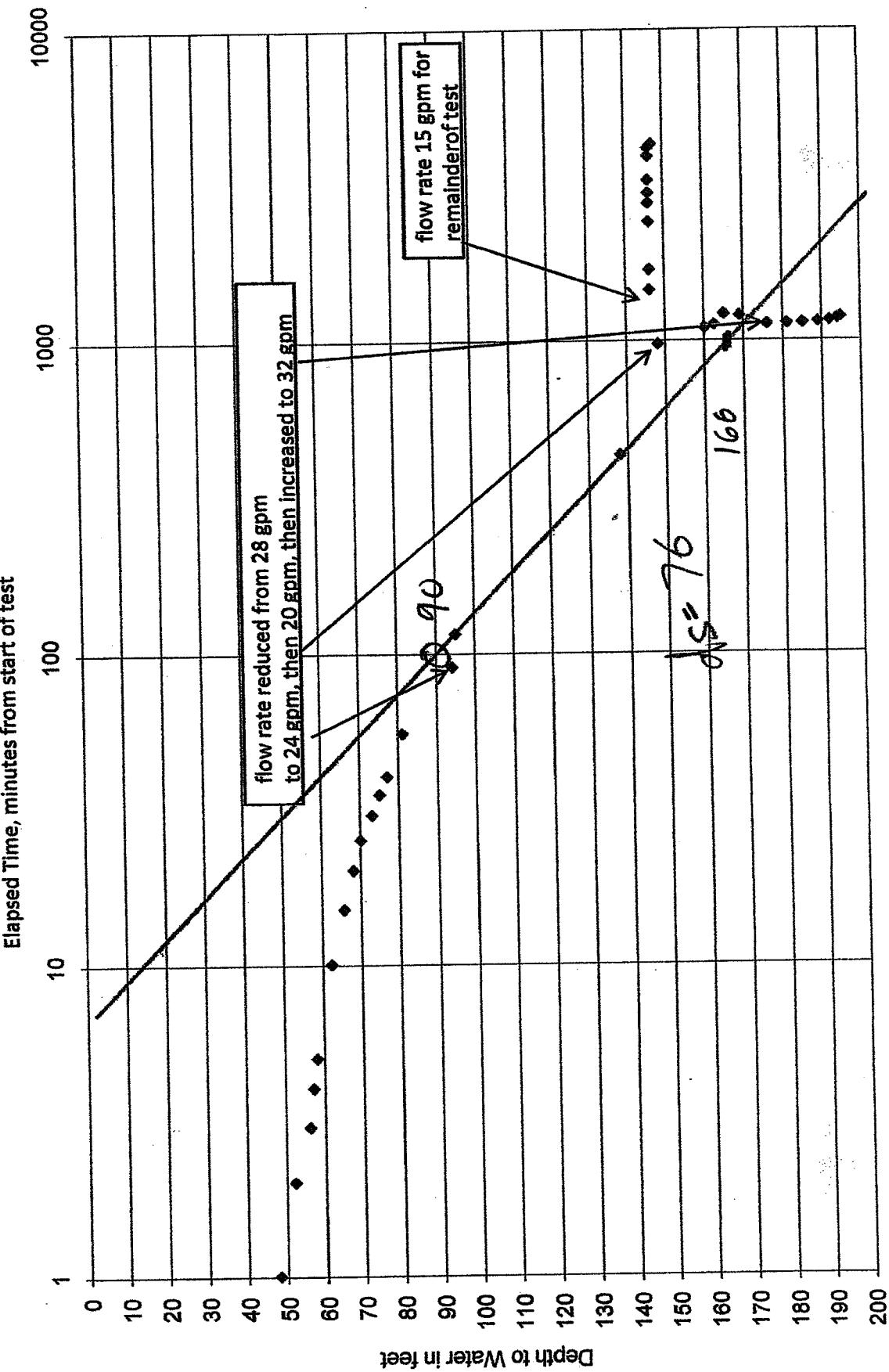
1079 El Camino Real
Arroyo Grande, CA 93420
805 489-5514

Pumping Test (71-hour) - Righetti Well #8
Edna Valley, California
December 2 to December 5, 2008

Depth to Static Water Level: 27.50 feet

Well Perforated from 190-350 feet depth
Pump set at 336'

Average flow rate = 18 gpm



Righetti Well #8
Yield Calculation

Operational drop 50 ft

pre-prod static	operat. static	ref drop	design drop	actual drop	70 min static	Max allow pumping level	max draw	cycles	max draw per cycle	ref draw	ref rate	Design flow
25	75	62.5	28.6	28.6	103.6	160	58.4	1,635	34.5	76	24	11
(ft bgs)	(ft)	(ft bgs)	(ft)	(ft bgs)	(ft)	(ft bgs)	(ft)	(cycles) log cycles from 100 min to 3 days	(ft)	(gpm)	(gpm)	(gpm)

30-day (Title 22 capacity)

pre-prod static	operat. static	ref drop	design drop	actual drop	70 min static	Max allow pumping level	max draw	cycles	max draw per cycle	ref draw	ref rate	30 day yield
25	75	62.5	20.8	20.8	95.8	160	64.2	2,635	24.4	76	24	6
(ft bgs)	(ft bgs)	(ft)	(ft)	(ft bgs)	(ft)	(ft bgs)	(ft)	(cycles) log cycles from 100 min to 30 days	(ft)	(gpm)	(gpm)	(gpm)

1-year (long term)

pre-prod static	operat. static	ref drop	design drop	actual drop	70 min static	Max allow pumping level	max draw	cycles	max draw per cycle	ref draw	ref rate	Long term yield
25	75	62.5	15.6	15.6	90.6	160	69.4	3,72	18.7	76	24	6
(ft bgs)	(ft bgs)	(ft)	(ft)	(ft bgs)	(ft)	(ft bgs)	(ft)	(cycles) log cycles from 100 min to 1 year	(ft)	(gpm)	(gpm)	(gpm)

Notes:
Yield estimate is based on Cooper-Jacob modification of Theis Equation



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Don Righetti
Ernest Righetti Corp.
4750 Righetti Rd.
San Luis Obispo, CA 93401

Log Number: 08-C16808
Order: P6368
Project: Well #8
Received: 12/03/08
Printed: 12/16/08

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled		Matrix	Method	Date Analyzed	Date Prepared	Batch
		Date & Time	DLR					
Well #8	David Righetti	12/03/08@10:00		Drinking Water				
Analyte	Result	DLR	Dilution Factor	Units				
Carbonate Alkalinity as CaCO ₃	Not Detected	2	1	mg/L	SM 2320B	12/15/08		4215
Bicarbonate Alkalinity as CaCO ₃	260	2	1	mg/L	SM 2320B	12/15/08		4215
Hydroxide Alkalinity as CaCO ₃	Not Detected	2	1	mg/L	SM 2320B	12/15/08		4215
Total Alkalinity as CaCO ₃	260	2	1	mg/L	SM 2320B	12/15/08		4215
Chloride	26	1	1	mg/L	EPA 300.0	12/03/08		3836
Total Cyanide	Not Detected	0.005	1	mg/L	SM 4500-CN C,E	12/11/08		4100
Color	Not Detected	1	1	units	SM 2120B	12/03/08		3932
Electrical Conductance	630	1	1	umhos/cm	SM 2510B	12/03/08		3932
Fluoride	0.3	0.1	1	mg/L	EPA 300.0	12/03/08		3836
Langlier Index (Corrosivity)	0.2	---	1	pH units	SM 2330B	12/16/08		9999
NBAS(Anionic Surfactants MW=340)	Not Detected	0.05	1	mg/L	SM 5540C	12/03/08		3797
Nitrate as N	Not Detected	0.1	1	mg/L	EPA 300.0	12/03/08		3836
Nitrate as NO ₃	Not Detected	0.4	1	mg/L	EPA 300.0			
Nitrite as N	Not Detected	0.1	1	mg/L	EPA 300.0	12/03/08		3836
Odor	Not Detected	1	1	TON	SM 2150B	12/03/08		3932
pH	7.9	0.1	1	pH units	SM 4500-H-B	12/03/08		3932
Sulfate	17	0.5	1	mg/L	EPA 300.0	12/03/08		3836
Total Dissolved Solids	350	10	1	mg/L	SM 2540C	12/09/08		4173
Turbidity	0.2	0.1	1	NTU	SM 2130B	12/03/08		3932
Total Coliform Bacteria	Present	---	NA		SM 9223	12/03/08		3844
E. coli	Absent	---	NA		SM 9223	12/03/08		3844
Calcium	21	0.2	5	mg/L	EPA 200.7	12/04/08		3877
Hardness as CaCO ₃	190	1	NA	mg/L	EPA 200.7			
Iron	Not Detected	0.1	5	mg/L	EPA 200.7	12/04/08		3877
Mercury	Not Detected	0.001	1	mg/L	EPA 245.1	12/05/08	12/04/08	3885
Potassium	1.1	0.5	5	mg/L	EPA 200.7	12/04/08		3877
Magnesium	33	0.2	5	mg/L	EPA 200.7	12/04/08		3877
Sodium	79	0.2	5	mg/L	EPA 200.7	12/04/08		3877
Benzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999



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Don Righetti
Ernest Righetti Corp.
4750 Righetti Rd.
San Luis Obispo, CA 93401

Log Number: 08-C16808
Order: P6368
Project: Well #8
Received: 12/03/08
Printed: 12/16/08

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled		Date & Time	Matrix			
Well #8	David Righetti	12/03/08	10:00		Drinking Water			
Analyte	Result	DLR	Dilution Factor	Units	Method	Date Analyzed	Date Prepared	Batch
Bromobenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Bromochloromethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Bromodichloromethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Bromoform	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Bromomethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
t-Butyl Alcohol (TBA)	Not Detected	2	1	ug/L	EPA 524.2	12/08/08		3999
t-Butylbenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
n-Butylbenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
sec-Butyl Benzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Carbon Tetrachloride	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Chlorobenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Chloroethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Chloroform	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Chloromethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
2-Chlorotoluene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
4-Chlorotoluene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Dibromochloromethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Dibromomethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,2-Dibromoethane (EDB)	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Dichlorodifluoromethane (R12)	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,2-Dichlorobenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,3-Dichlorobenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,4-Dichlorobenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,1-Dichloroethane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,2-Dichloroethane (EDC)	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,1-Dichloroethene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
cis-1,2-Dichloroethene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
trans-1,2-Dichloroethene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
1,2-Dichloropropane	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999



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Don Righetti
Ernest Righetti Corp.
4750 Righetti Rd.
San Luis Obispo, CA 93401

Log Number: 08-C16808
Order: P6368
Project: Well #8
Received: 12/03/08
Printed: 12/16/08

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled		Matrix
		Date	@ Time	
Well #8	David Righetti	12/03/08	10:00	Drinking Water
Analyte	Result	DLR	Dilution Factor	Method
1,3-Dichloropropane	Not Detected	0.5	1	ug/L
2,2-Dichloropropane	Not Detected	0.5	1	ug/L
1,1-Dichloropropene	Not Detected	0.5	1	ug/L
cis-1,3-Dichloropropene	Not Detected	0.5	1	ug/L
trans-1,3-Dichloropropene	Not Detected	0.5	1	ug/L
Ethyl t-Butyl Ether (ETBE)	Not Detected	0.5	1	ug/L
Ethylbenzene	Not Detected	0.5	1	ug/L
Hexachlorobutadiene	Not Detected	0.5	1	ug/L
Isopropylbenzene	Not Detected	0.5	1	ug/L
Diisopropyl Ether (DIPE)	Not Detected	0.5	1	ug/L
4-Isopropyltoluene	Not Detected	0.5	1	ug/L
Methylene Chloride	Not Detected	0.5	1	ug/L
Methyl t-Butyl Ether (MTBE)	Not Detected	0.5	1	ug/L
Naphthalene	Not Detected	0.5	1	ug/L
n-Propylbenzene	Not Detected	0.5	1	ug/L
Styrene	Not Detected	0.5	1	ug/L
t-Amyl Methyl Ether (TAME)	Not Detected	0.5	1	ug/L
1,1,1,2-Tetrachloroethane	Not Detected	0.5	1	ug/L
1,1,2,2-Tetrachloroethane	Not Detected	0.5	1	ug/L
Tetrachloroethene (PCE)	Not Detected	0.5	1	ug/L
Toluene	6.4	0.5	1	ug/L
1,2,3-Trichlorobenzene	Not Detected	0.5	1	ug/L
1,2,4-Trichlorobenzene	Not Detected	0.5	1	ug/L
1,1,1-Trichloroethane	Not Detected	0.5	1	ug/L
1,1,2-Trichloroethane	Not Detected	0.5	1	ug/L
Trichloroethene	Not Detected	0.5	1	ug/L
Trichlorofluoromethane (F11)	Not Detected	0.5	1	ug/L
1,2,3-Trichloropropane	Not Detected	0.5	1	ug/L
1,2,4-Trimethylbenzene	Not Detected	0.5	1	ug/L



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Don Righetti
Ernest Righetti Corp.
4750 Righetti Rd.
San Luis Obispo, CA 93401

Log Number: 08-C16808
Order: P6368
Project: Well #8
Received: 12/03/08
Printed: 12/16/08

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled		Date & Time	Matrix			
Well #8	David Righetti	12/03/08	10:00		Drinking Water			
Analyte	Result	DLR	Dilution Factor	Units	Method	Date Analyzed	Date Prepared	Batch
1,3,5-Trimethylbenzene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Trichlorotrifluoroethane (F113)	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Vinyl Chloride	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
m,p-Xylene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
o-Xylene	Not Detected	0.5	1	ug/L	EPA 524.2	12/08/08		3999
Total THM's	Not Detected	0.5	NA	ug/L	EPA 524.2			
Total Xylenes	Not Detected	0.5	1	ug/L	EPA 524.2			
Aluminum	Not Detected	0.05	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Antimony	Not Detected	0.006	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Arsenic	Not Detected	0.002	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Barium	0.16	0.1	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Beryllium	Not Detected	0.001	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Cadmium	Not Detected	0.001	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Chromium	Not Detected	0.01	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Copper	Not Detected	0.05	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Lead	Not Detected	0.005	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Manganese	0.03	0.02	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Nickel	Not Detected	0.01	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Selenium	Not Detected	0.005	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Silver	Not Detected	0.01	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Thallium	Not Detected	0.001	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931
Zinc	Not Detected	0.05	1	mg/L	EPA 200.8	12/05/08	12/04/08	3931

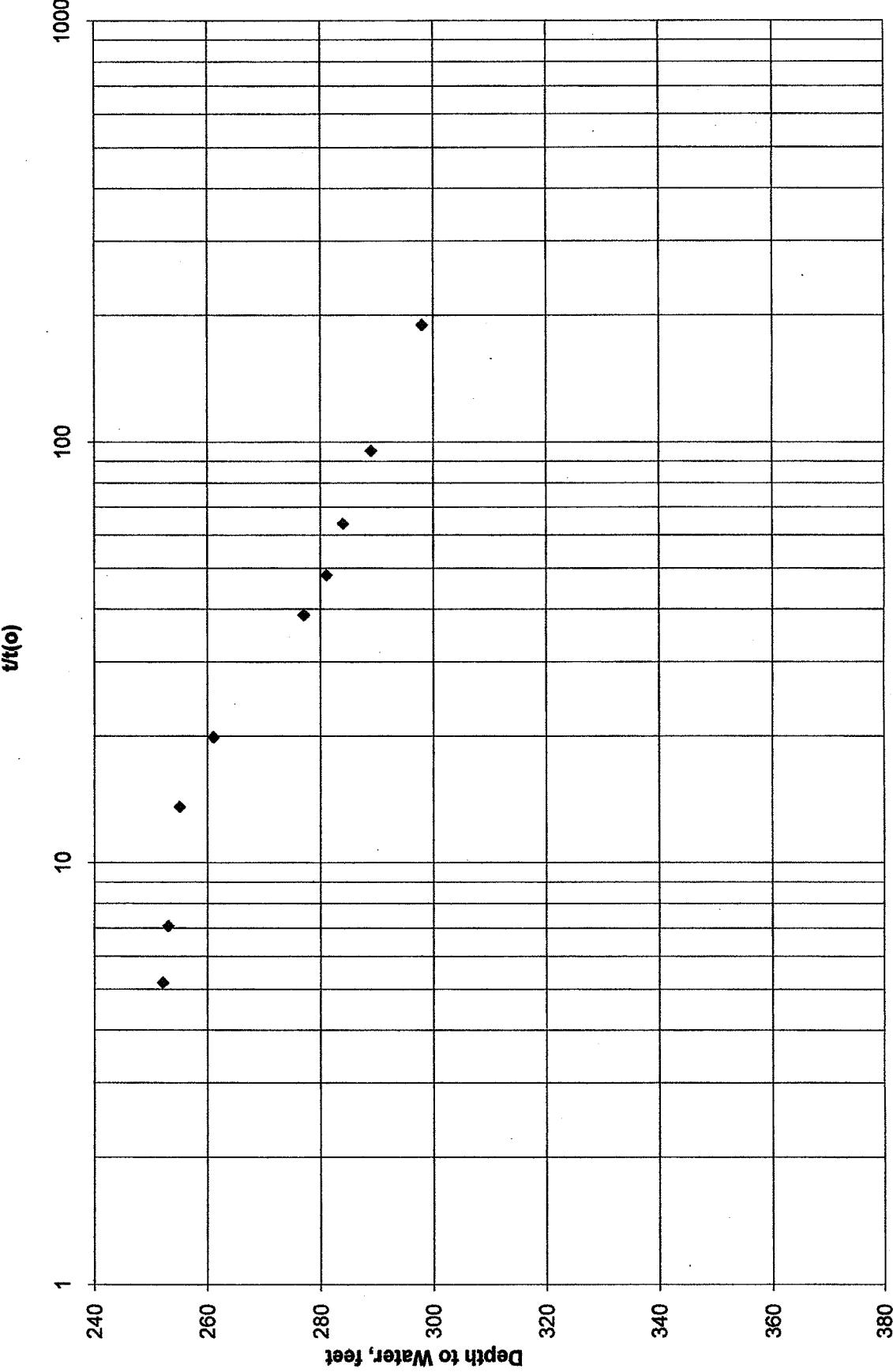
DLR = Detection Limit for Reporting. Results of "Not Detected" are below DLR.

**Recovery Test - Righetti Well #7, Redrock Road
Edna Valley, California
December 2, 2008**

Depth to Static Water Level: 246 feet

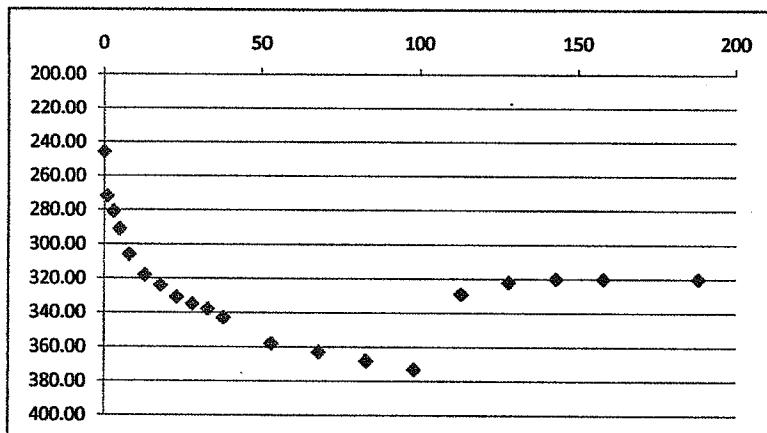
Well depth 383'
Pump set at 373'

Average flow rate during test: 13 gpm
Duration of Test 3 hours



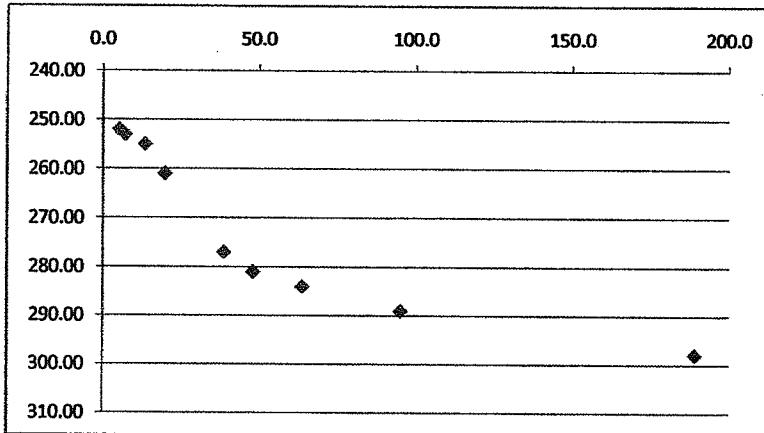
Pumping Test (3-hour), Righetti Well #7, Redrock Road

Day Mo./Day/Yr	Time hr:min	Elapsed Time minutes	Depth to Water feet	Drawdown feet	Recorded Pumping Rate gallons per minute
12/2/08	10:07	0	246.00	0	Start
	10:08	1	272.00	26.00	20
	10:10	3	281.00	35.00	20
	10:12	5	291.00	45.00	20
	10:15	8	306.00	60.00	18
	10:20	13	318.00	72.00	18
	10:25	18	324.00	78.00	15.5
	10:30	23	331.00	85.00	15.5
	10:35	28	335.00	89.00	15.5
	10:40	33	338.00	92.00	15
	10:45	38	343.00	97.00	15
	11:00	53	358.00	112.00	14
	11:15	68	363.00	117.00	14
	11:30	83	368.00	122.00	14
	11:45	98	373.00	127.00	14
	12:00	113	329.00	83.00	12
	12:15	128	322.00	76.00	12.4
	12:30	143	320.00	74.00	12.4
	12:45	158	320.00	74.00	12.4
	13:15	188	320.00	74.00	12.4



Recovery Test, Righetti Well #7, Redrock Road

Day Mo./Day/Yr	Time hr:min	Elapsed Time minutes	Depth to Water feet	Elapsed Time minutes	Recovery Time Ratio $t/t(0)$	s
Recovery		t	s	t(0)	$t/t(0)$	
12/5/08	13:16	189	298.00	1	189.0	298.00
	13:17	190	289.00	2	95.0	289.00
	13:18	191	284.00	3	63.7	284.00
	13:19	192	281.00	4	48.0	281.00
	13:20	193	277.00	5	38.6	277.00
	13:25	198	261.00	10	19.8	261.00
	13:30	203	255.00	15	13.5	255.00
	13:46	219	253.00	31	7.1	253.00
	14:00	233	252.00	45	5.2	252.00



Pumping Test (3-hour) - Righetti Well #7-Redrock Road
Edna Valley, California
December 2, 2008

Depth to Static Water Level: 246 feet

Average flow rate = 13 gpm

Well Depth 383'
Pump set at 373'

Elapsed Time, minutes from start of test

